KHC Hospital Improvement Innovation Network

KHC HIIN Measures Dictionary

November 5, 2019
Version 2.7

Change log:

- November 5, 2019 – Modified the AHRQ PSI measure hyperlinks for the following measures to point to the most current AHRQ guidance: HIIN-PrU-1, HIIN-SEPSIS-1a, HIIN-SEPSIS-1c, HIIN-SEPSIS-1d, HIIN-VTE-1. HIIN-SEPSIS-1d has been clarified with the following note: CMS excludes assignment to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality. It is a hospital's choice whether to include or exclude comfort/palliative care as long as the monthly measurement is consistent with the baseline measurement and throughout the measurement period.
- September 5, 2019 – Changed the following measures from **required** to **optional:** MRSA Bacteremia - Standardized Infection Ratio (SIR) (HIIN-MRSA-1); Hospital-onset MRSA Bacteremia Events (HIIN-MRSA-2); SSI SIR – total knee replacement surgeries (HIIN-SSI-1c); SSI rate – total knee replacement surgeries (HIIN-SSI-2c); SSI SIR – total hip replacement surgeries (HIIN-SSI-1d); SSI rate – total hip replacement surgeries (HIIN-SSI-2d); Harm Events Related to Patient Handling (HIIN-WS-1b);Harm Events Related to Workplace Violence (HIIN-WS-1c). Updated phrasing in Data Entry description to maintain consistency.
- June 26, 2019 – Updated rate multiplier in Sepsis bundle measures from 1,000 to 100. Updated phrasing in alternate baseline periods to maintain consistency.
- May 16, 2019 - Added new measure: Hand-Hygiene Adherence Rate *(Optional); Clostridium difficile* changed to *Clostridioides difficile;* Falls baseline updated; Updated PVAP monitoring period; PVAP has changed from optional to required; Links updated; Measure guidance updated to point to HRET HIIN website; Removed measure: Potentially preventable Venous Thromboembolism (VTE-6) *(Optional)*; HAPU Stage 3+ measure is applicable for all hospitals.
- December 17, 2018 – Added new measure: PVAP (optional); links updated; baselines updated : CDI, falls with injury, SSI measures, VAE and WS-patient handling; measure names aligned with CMS terms; measures that utilize the CDC NHSN definition: utilize the definition per NHSN specifications that apply at the discharge date of the patient; standardized wording between measures; updated preferred measures (e.g., PrU-1 and READ-1); for SIR measures, the following was added: NHSN calculates – No work needed if rights conferred; Sepsis Mortality added: "Number of in-hospital deaths due to severe sepsis and septic shock CMS… to determine sepsis mortality"; definition for readmission inclusions and exclusions spelled out; Removed references to ICD-9.
- November 17, 2018 – Baseline and measure specifications of HIIN-Pru-1, HIIN-Sepsis-1a and HIIN-VTE-1 have been changed; updated the specifications link and footnote for Pressure Ulcer Rate, Stage 3+; Update the AHRQ PSI links to updated v6; Added clarifying note to the numerator for Readmission within 30 Days (All Cause) Rate; updated HIIN data submission schedule; updated data source for Harm Events Related to Workplace Violence; updated Pressure Ulcer topic name to Pressure Ulcer/Injury; added clarifying note for Medicare All-cause Readmissions measure.
- July 12, 2018 – Updated contact information, reviewed and updated links.
- November 9, 2017 – Second release. Add 3/6 hour sepsis bundles, clarified naloxone, falls w/wo injury, Medicare readmissions wording, update data submission schedule, corrected CDI and sepsis measure rates to per 1,000, updated table of contents and data flow map, added NHSN transfer FAQ.
- November 2, 2016 – First release. Includes HIIN Program Core Evaluation Measures and Additional Required Measures, based on HRET Encyclopedia of Measures (EOM) v1.1, which includes a new measure for hospital-onset sepsis. In addition, optional HEN 2.0 carry-over measures have been included in the KHC HIIN measure set (SSI option 2, Falls with/without Injury, CLABSI CLIP bundle, and potentially preventable VTE).

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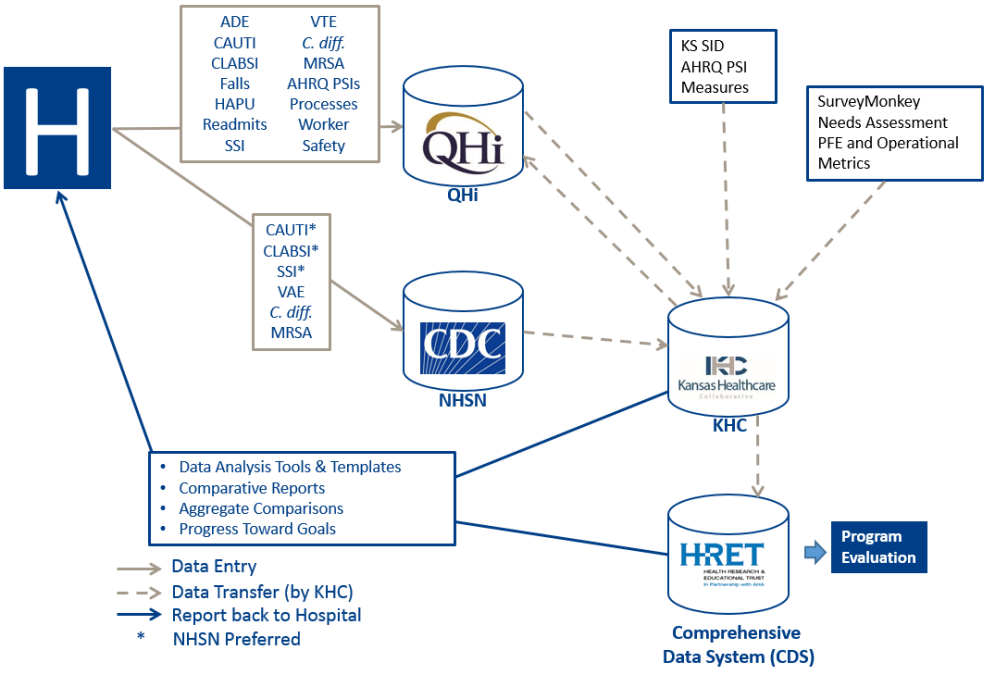
KHC HIIN Data Systems/Sources:

KHA's Quality Health Indicators (QHi)
CDC's National Healthcare Safety Network (NHSN)
KHA's State Inpatient Database
KHC's SurveyMonkey

Data Flow:



NHSN: Instructions for joining the KHC HIIN group to confer NHSN rights.

- How to join KHC group: www.khconline.org/files/Instructions_to_Join_KHC_HIIN_NHSN_Group.pdf

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

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Type: O = Outcome measure
P = Process measure

Data System: QHi = Quality Health Indicators
NHSN = National Healthcare Safety Network
SID = Kansas State Inpatient Database**
Survey = Online survey initiated by Kansas Healthcare Collaborative

For questions about HIIN measures or data submission,
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*The Kansas State Inpatient Database may be used as a fallback data source for certain measures that can be obtained from inpatient discharge records; however, this data is not timely for improvement purposes.

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Adverse Drug Events: Anticoagulation Safety

ADE: CMS HIIN Evaluation Measure	Outcome Measure
Adverse Drug Events: Anticoagulation Safety	
Measure type	Outcome
Numerator	Inpatients experiencing high anticoagulation with warfarin
Numerator Definition	Defined by hospital. Hospitals typically use triggers of INR>5 or >6 for this measure. Changes in measure definition compared to the baseline time period may artificially change the rate.
Denominator	Inpatients receiving warfarin anticoagulation therapy
Denominator Definition	Number of inpatients receiving warfarin anticoagulation therapy
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	See references below for guidance.
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.*
Monitoring period	Monthly, beginning October 2016

HIIN-ADE-1a

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function[1]. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Healthcare Improvement's (IHI) trigger tool includes a list of known ADE triggers and instructions for measuring the number and degree of harmful medication events. The tool is available online at the following link: www.ihi.org/resources/Pages/Tools/TriggerToolforMeasuringAdverseDrugEvents.aspx

For more information on reducing ADE Anticoagulation Safety, please visit the HRET HIIN ADE topic page at http://www.hret-hiin.org/topics/adverse-drug-events.shtml.

[1] Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

Adverse Drug Events: Glycemic Management

ADE: CMS HIIN Evaluation Measure	Outcome Measure
Adverse Drug Events: Glycemic Management	
Measure type	Outcome
Numerator	Hypoglycemia in inpatients receiving insulin or other hypoglycemic agents
Numerator Definition	Hypoglycemia defined as plasma glucose concentration of 50 mg per dl or less.
Denominator	Inpatients receiving insulin or other hypoglycemic agents
Denominator Definition	Number of inpatients receiving insulin or other hypoglycemic agents
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	See references below for guidance
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems
Data entry/transfer	Enter into QHi
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.*
Monitoring period	Monthly, beginning October 2016

HIIN-ADE-1b

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function[2]. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

For more information on reducing ADE Anticoagulation Safety, please visit the HRET HIIN ADE topic page at http://www.hret-hiin.org/topics/adverse-drug-events.shtml

[2] Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

Adverse Drug Events: Opioid Safety

ADE: CMS HIIN Evaluation Measure	Outcome Measure
Adverse Drug Events: Opioid Safety	
Measure type	Outcome
Numerator	Number of patients treated with opioids who received naloxone
Numerator Definitions	Naloxone may be referred to as Narcan, Nalone or Narcanti
Denominator	Number of patients who received an opioid agent
Denominator Definitions	Primarily inpatients but may include outpatient surgery patients. Includes (but not limited to) patients treated with opioids such as fentanyl, hydromorphone, methadone, morphine, oxycodone or other opioid medications. Exclude ED patients receiving naloxone to reverse opioids received before hospital arrival (whether due to recreational opioid use, unintentional overdose, etc.).
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	See references below for guidance
Data source(s)	Numerator: incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review Denominator: billing systems
Data entry/transfer	Enter into QHi
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.*
Monitoring period	Monthly, beginning October 2016

HIIN-ADE-1c

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function[3]. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Safe Medication Practices has assembled a number of tools related to drug safety, which can be accessed online at the following link: https://www.ismp.org/guidelines

The Institute for Healthcare Improvement's (IHI) trigger tool includes a list of known ADE triggers and instructions for measuring the number and degree of harmful medication events. The tool is available online at the following link: www.ihi.org/resources/Pages/Tools/TriggerToolforMeasuringAdverseDrugEvents.aspx

For more information on reducing ADE Anticoagulation Safety, please visit the HRET HIIN ADE topic page at http://www.hret-hiin.org/topics/adverse-drug-events.shtml

[3] Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

Clostridioides difficile Rate

***Clostridioides difficile*: CMS HIIN Evaluation Measure**	**Outcome Measure**
Clostridioides difficile Rate	
Measure type	Outcome
Numerator	Total number of observed hospital-onset *C. difficile* lab-identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs
Numerator Definition	Total number of observed hospital-onset (>3days) *C. difficile* lab-identified events among all inpatients in the facility, excluding well-baby nurseries and NICUs. Positive tests occurring for the same patient and location within 14 days of a previous test are duplicative and should only be counted once.
Denominator	Patient days (facility-wide)
Denominator Definition	Patient days (facility-wide)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x$ 10,000
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention
Data source(s)	NHSN, infection surveillance systems
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CDI-1b

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN,** or hospitals that have **NOT conferred rights to their NHSN data,** must report the numerators and denominators, following the CDC specifications to define *C. difficile.*

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:
www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html
www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html

For more information on CDI, please visit the HRET HIIN CDI topic page at http://www.hret-hiin.org/topics/clostridium-difficile-infection.shtml.

Clostridioides difficile Standardized Infection Ratio (SIR) *DERIVED*

NHSN-reporting Facilities Only

***C. difficile*: CMS HIIN Evaluation Measure – NQF 1717**	**Outcome Measure**
Clostridioides difficile Standardized Infection Ratio (SIR) (C. difficile) (CDI)	
Measure type	Outcome
Numerator	Total number of observed hospital-onset *C. difficile* lab-identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs
Denominator	Predicted cases of patients with *C. difficile*
Rate calculation	$\left(\frac{Numerator}{Denominator}\right)$
Specifications/definitions Sources/Recommendations	CDC NHSN
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a state group. NHSN-conferring rights required.
Data entry/transfer	Calculated based on NHSN data. No data entry required.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Reported quarterly, beginning Oct 2016 – enter in Monthly

HIIN-CDI-1a

Specification link: www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at discharge date of the patient.

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:
www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html
www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html

For more information on CDI, please visit the HRET HIIN CDI topic page at http://www.hret-hiin.org/topics/clostridium-difficile-infection.shtml.

Catheter-Associated Urinary Tract Infection (CAUTI) Rate

CAUTI: CMS HIIN Evaluation Measure	**Outcome Measure**
Catheter-Associated Urinary Tract Infection (CAUTI) rate, reported separately for • *Measure 2a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units* • *Measure 2b: CAUTI ICU: ICUs excluding NICUs*	
Measure type	Outcome
Numerator	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations
Numerator Definition	Catheter-associated symptomatic urinary tract infections based on CDC NHSN CA-SUTI definition (all inpatient units excluding NICUs)
Denominator	Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period
Denominator Definition	Total number of urinary catheter days for all patients that have an indwelling urinary catheter in any inpatient unit (excluding NICUs)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
	Available from CDC NHSN Additional resources: CDC
Data source(s)	NHSN – conferring rights recommended
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CAUTI-2a: ICUs (excluding NICUs) + Other Inpatient Units; HIIN-CAUTI-2b: ICUs excluding NICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for ICUs excluding NICUs **and** for ICUs excluding NICUs + Other Inpatient Units, separately, following the CDC specifications to define CAUTI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 2b.

The Partnership for Patients has also gathered many resources for CAUTI prevention and measurement. These resources are catalogued online at the following link:
https://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

Catheter-Associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR) *DERIVED*

National Health Safety Network (NHSN) Reporting Facilities ONLY

CAUTI: CMS HIIN Evaluation Measure – NHSN Only – NQF 0138	**Outcome Measure**
Catheter-associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR) • *Measure 1a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units* • *Measure 1b: CAUTI ICU: ICUs (excluding NICUs)*	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
SIR calculation	$\left(\frac{Numerator}{Denominator}\right)$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Available from National Quality Forum (NQF) 0138 Additional resources: CDC
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a the KHC HIIN group. NHSN-conferring rights required.
Data entry/transfer	Calculated based on NHSN data. No data entry required.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CAUTI-1a: ICUs (excluding NICUs) + Other Inpatient Units
HIIN-CAUTI-1b: ICUs excluding NICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

Urinary Catheter Utilization Ratio

CAUTI: CMS HIIN Evaluation Measure	**Process Measure**
Urinary Catheter Utilization Ratio • *Measure 3a: CAUTI all units: ICUs (excluding NICUs) + Other Inpatient Units* • *Measure 3b: CAUTI ICU: ICUs excluding NICUs*	
Measure type	Process
Numerator	Total number of indwelling urinary catheter days for bedded inpatient care locations under surveillance (excluding patients in level II or III NICUs).
Denominator	Total number of patient days for bedded inpatient care locations under surveillance (excluding patients in level II or III NICUs)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	CDC NHSN Additional resources: CDC
Data source(s)	NHSN OR in-hospital infection prevention surveillance systems and billing systems
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CAUTI-3a: ICUs (excluding NICUs) + Other Inpatient Units; HIIN-CAUTI-3b: ICUs excluding NICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that **have NOT conferred rights to their NHSN data,** must report the numerators and denominators for ICUs excluding NICUs **and** also for ICUs excluding NICUs + Other Inpatient Units, separately, following the CDC specifications to define CAUTI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 3b.

The Partnership for Patients has also gathered many resources for CAUTI prevention and measurement. The resources are catalogued online at the following link: https://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

Central Line-Associated Blood Stream Infection (CLABSI) Rate

CLABSI: CMS HIIN Evaluation Measure – All Facilities	**Outcome Measure**
Central Line-Associated Bloodstream Infection (CLABSI) Rates • *Measure 1: CLABSI all units: ICUs + Other Inpatient Units* • *Measure 2: CLABSI ICU: All ICUs*	
Measure type	Outcome
Numerator	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations
Denominator	Total number of central line days for each location under surveillance for CLABSI during the data period
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	CDC NHSN Additional resources: CDC
Data source(s)	NHSN- conferring rights recommended
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CLABSI-2a: All Inpatient Units
HIIN-CLABSI-2b: All ICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data,** must report the numerators and denominators for All Inpatient Units and for All ICUs separately into QHi, following the CDC specifications to define CLABSI.

The Partnership for Patients has also gathered many resources for CLABSI prevention and measurement. These resources are catalogued online at the following link:
http://partnershipforpatients.cms.gov/p4p_resources/tsp-centralline-associatedbloodstreaminfections/toolcentralline-associatedbloodstreaminfectionsclabsi.html

Central Line-Associated Blood Stream Infection (CLABSI) Standardized Infection Ratio (SIR) *DERIVED*

NHSN Reporting Facilities ONLY

CLABSI: CMS HIIN Evaluation Measure – NHSN Only – NQF 0139 **Outcome Measure**	
Central Line-Associated Bloodstream Infection (CLABSI) Standardized Infection Ratio (SIR) • *Measure 1: CLABSI all units: ICUs + Other Inpatient Units* • *Measure 2: CLABSI ICU: All ICUs*	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
SIR calculation	$\left(\frac{Numerator}{Denominator}\right)$
Specifications/definitions Sources/Recommendations	CDC NHSN NQF information: NQF 0139 Additional resources: CDC
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHC HIIN group. NHSN- conferring rights required.
Data entry/transfer	Calculated based on NHSN data. No data entry required.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CLABSI-1a: All Inpatient Units
HIIN-CLABSI-1b: All ICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

Central Line Utilization Ratio

CLABSI: CMS HIIN Evaluation Measure	Process Measure
Central Line Utilization Ratio • *Measure 1: CLABSI all units: ICUs + Other Inpatient Units* • *Measure 2: CLABSI ICU: All ICUs*	
Measure type	Process
Numerator	Total number of central line days for bedded inpatient care locations under surveillance
Denominator	Total number of patient days for bedded inpatient care locations under surveillance
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	CDC NHSN Additional resources: CDC
Data source(s)	NHSN (all inpatient locations) OR In-hospital infection prevention surveillance systems & billing systems
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-CLABSI-3a: All Inpatient Units; HIIN-CLABSI-3b: All ICUs

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for All Inpatient Units **and** also for All ICUs separately into QHi, following the CDC specifications to define CLABSI.

The Partnership for Patients has also gathered many resources for CLABSI prevention and measurement. These resources are catalogued online at the following link:
http://partnershipforpatients.cms.gov/p4p_resources/tsp-centrallineassociatedbloodstreaminfections/toolcentralline-associatedbloodstreaminfectionsclabsi.html

Central Line Insertion Bundle Adherence Rate *(Optional)*

CLABSI: Optional Kansas Measure	**Process Measure**
Central Line Insertion Bundle Adherence Rate (all-or-none bundle) • *All Inpatient Units*	
Measure type	Process
Numerator	Number of central line insertions during which all elements of the bundle were followed
Numerator Definition	Number of central line insertions adhering to each of the following CLIP bundle components: 1. Hand hygiene performed 2. Appropriate skin prep • Chlorhexidine gluconate (CHG) for patients greater than or equal to 2 months old • Povidone iodine, alcohol, CHG, or other specified for children less than 2 months old 3. Skin prep agent has completely dried before insertion 4. All maximal sterile barriers used: Sterile gloves, Sterile gown, Cap, Mask worn, Large sterile drape (a large sterile drape covers the patient's entire body).
Denominator	Total number of central line insertions (ICUs including NICUs)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN
Data source(s)	NHSN (all inpatient locations) OR In-hospital infection prevention surveillance systems & billing systems
Data entry/transfer	Enter into NHSN or QHi. Note: data are not automatically transferred from NHSN to QHi for this process measure.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible beginning with October 2016.*
Monitoring period	Monthly, beginning October 2016
Changes from HEN 2.0	Note: This continues to be an optional process measure for Kansas hospitals reporting to NHSN. This measure is included in the Blue Cross Blue Shield of Kansas' 2017 Quality Based Reimbursement Program.

Falls with Injury

Falls: CMS HIIN Evaluation Measure (NQF 0202)	Outcome Measure
All Documented Patient Falls with an Injury Level of Minor or Greater	
Measure type	Outcome
Numerator	Total number of patient falls with an injury level of minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the measurement period[4]
Numerator definition	Total number of patient falls* of injury level minor or greater (whether or not assisted by a staff member) by eligible hospital unit during the measurement period (See detailed inclusion and exclusion criteria below.) *A patient fall is an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient and occurs on an eligible reporting nursing unit. All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Include assisted falls-when a staff member attempts to minimize the impact of the fall. (Note: each fall is counted, even for patients who fall on multiple occasions). (See detailed inclusion and exclusion criteria below)
Denominator	Patient days in eligible units during the measurement period[5]
Denominator definition	Patient days by eligible units during the measurement period (See detailed inclusion and exclusion criteria below)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	Available from NQF 0202
Data source(s)	Administrative preferred Billing systems, medical records, fall surveillance systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning Oct 2016
Changes from HEN 2.0	None

HIIN-Falls-1

[4] Extracted from NQF Quality Positioning System: http://www.qualityforum.org/QPS/0202

[5] Includes inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units

Denominator Notes:
Included populations:
- Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units
- Patients of any age on an eligible reporting unit are included in the patient day count

Excluded Populations:
- Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Numerator Notes:
Included Populations:
- Falls with Fall Injury Level of "minor" or greater, including assisted and repeat falls with an injury level of minor or greater
- Patient injury falls occurring while on an eligible reporting unit

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.

National Database of Nursing Quality Indicators (NDNQI) fall definition:
A patient fall is an unplanned descent to the floor with or without injury to the patient. Include falls when a patient lands on a surface where you wouldn't expect to find a patient. All unassisted and assisted falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall.

NDNQI definition for repeat fall:
More than one fall in a given month by the same patient after admission to this unit, may be classified as a repeat fall.

NDNQI definitions for injury:
- None – patient had no injuries (no signs or symptoms) resulting from the fall, if an x-ray, CT scan or other post fall evaluation results in a finding of no injury
- Minor – resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, bruise or abrasion
- Moderate – resulted in suturing, application of steri-strips/skin glue, splinting or muscle/joint strain
- Major – resulted in surgery, casting, traction, required consultation for neurological (basilar skull fracture, small subdural hematoma) or internal injury (rib fracture, small liver laceration) or patients with coagulopathy who receive blood products as a result of the fall
- Death – the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall).
  http://www.qualityforum.org?QPS/0202 Measure History section

Additional references:
These data elements shall be submitted by all hospitals. The total patient days can be collected from billing systems. The number of patient falls could be collected from electronic clinical data or medical records, fall surveillance systems, injury reports, event tracking systems or other similar sources. See the Falls with Injury data Collection Fact Sheet for more details.

The Agency for Healthcare Research & Quality (AHRQ) has developed a comprehensive resource for measuring fall rates and fall prevention practices. The resource is available online at the following link: www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html

The American Nurses Association (ANA) has published an article about measuring fall program outcomes. The article is available online at the following link: www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No2May07/ArticlePreviousTopic/MeasuringFallProgramOutcomes.html

Falls with or without Injury *(Optional)*

Falls: Optional Kansas Measure (NQF 0141)	**Outcome Measure**
All Documented Patient Falls with or without Injury	
Measure type	Outcome
Numerator	Number of patient falls
Numerator definition	Number of patient falls in the hospital or on the unit, with or without injury to the patient. A patient fall is an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient and occurs on an eligible reporting nursing unit. All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Include assisted falls-when a staff member attempts to minimize the impact of the fall. (Note: each fall is counted even for patients who fall on multiple occasions). (See detailed inclusion and exclusion criteria below)
Denominator	Number of patient days
Denominator definition	Patient days by eligible units during the measurement period (see detailed inclusion and exclusion criteria below)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	Available from NQF 0141
Data source(s)	Billing systems, medical records, surveillance systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016
Monitoring period	Monthly, beginning Oct 2016

Denominator Notes:
Included Populations:

- Inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units
- Patients of any age on an eligible reporting unit are included in the patient day count

Excluded Populations:

- Other unit types (e.g., pediatric, psychiatric, obstetrical, etc.)

Numerator Notes:
Included Populations:

- Patient falls with or without injury occurring while on an eligible reporting unit

Target population is adult acute care inpatient and adult rehabilitation patients. Eligible unit types include adult critical care, step-down, medical, surgical, medical-surgical combined, critical access, adult rehabilitation in-patient.

National Database of Nursing Quality Indicators (NDNQI) fall definition:
A patient fall is an unplanned descent to the floor with or without injury to the patient. Include falls when a patient lands on a surface where you wouldn't expect to find a patient. All unassisted and assisted falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor). Also report patients that roll off a low bed onto a mat as a fall.

NDNQI definition for repeat fall:
More than one fall in a given month by the same patient after admission to this unit, may be classified as a repeat fall.

Additional references:
The Agency for Healthcare Research & Quality (AHRQ) has developed a comprehensive resource for measuring fall rates and fall prevention practices. The resource is available online at the following link:
www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html

The American Nurses Association (ANA) has published an article about measuring fall program outcomes. The article is available online at the following link:
www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No2May07/ArticlePreviousTopic/MeasuringFallProgramOutcomes.html

The Partnership for Patients has gathered many resources for injuries from falls and immobility. These resources are catalogued online at the following link:
https://partnershipforpatients.cms.gov/p4p_resources/tsp-injuriesandfallsfromimmobility/toolinjuriesandfallsfromimmobility.html

Hospital-Acquired Pressure Ulcer Prevalence, Stage 2+

Pressure Ulcer: CMS HIIN Evaluation Measure (NQF 0201)	**Outcome Measure**
Pressure Ulcer Prevalence, Hospital-Acquired-Stage 2+	
Measure type	Outcome
Numerator	Patients with at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode.[6]
Numerator definition	Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode
Denominator	All patients, 18 years of age or greater, surveyed for the measurement episode
Denominator definition	All patients surveyed for the measurement episode. Excluded populations: • Patients who refuse to be assessed • Patients who are off the unit at the time of the prevalence measurement, i.e., surgery, x-ray, physical therapy, etc. • Patients who are medically unstable at the time of the measurement for whom assessment would be contraindicated at the time of the measurement, i.e., unstable blood pressure, uncontrolled pain, or fracture waiting repair. • Patients who are actively dying and pressure ulcer prevention is no longer a treatment goal.
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Available from NQF 0201
Data source(s)	Surveillance systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016 Alternate: Quarterly, beginning with 4Q2016 (report in last month of each quarter)
Changes from HEN 2.0	None

HIIN-PrU-2

[6] Extracted from NQF Quality Positioning System; http://www.qualityforum.org/QPS/0201

These data elements shall be submitted by all hospitals. Data can be collected through incident reporting, medical records, hospital discharge or administrative data. Hospitals are strongly encouraged to report pressure ulcer prevalence monthly.

The AHRQ has developed a comprehensive resource for measuring pressure ulcer rates and prevention practices. The resource is available online at the following link:
www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool5.html

For more information on reducing pressure ulcers, please visit the HRET pressure ulcer topic page at http://www.hret-hiin.org/topics/pressure-ulcers.shtml.

Pressure Ulcer Rate, Stage 3+

Pressure Ulcer Rate, Stage 3+: CMS HIIN Evaluation Measure	Outcome Measure
Pressure Ulcer Rate, Stages 3+ (preferred pressure ulcer measure)	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary diagnosis codes for pressure ulcer and any secondary diagnosis codes for pressure ulcer stage III or IV (or unstageable)[7]
Denominator	Surgical or medical discharges, for patients ages 18 years and older. Surgical and medical discharges are defined by specific DRG or MSDRG codes.[8]
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	AHRQ
Data source(s)	Administrative data
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-PrU-1

These data elements shall be submitted by all hospitals. Data can be collected through incident reporting, hospital discharge, or administrative data.

The AHRQ has developed a comprehensive resource for measuring pressure ulcer rates and prevention practices. The resource is available online at the following link:
http://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool5.html

For more information on reducing pressure ulcers, please visit the HRET pressure ulcer topic page at http://www.hret-hiin.org/topics/pressure-ulcers.shtml.

[7] Extracted from AHRQ: http://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec.aspx

[8] The measure specifications exclude stays less than 3 days. While CAHs are required to maintain an annual average length of stay of 96 hours or less (https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/CritAccessHospfctsht.pdf), CAHs are encouraged to use the AHRQ PSI specifications to track pressure ulcers for appropriate inpatient stays in their facilities, even if the inpatient stay is less than 3 days.

Readmission within 30 Days (All Cause) Rate

Readmission: CMS HIIN Evaluation Measure	Outcome Measure
Readmission within 30 Days (All Cause) (preferred readmission measure)	
Measure type	Outcome
Numerator	Inpatients returning as an acute care inpatient within 30 days of date of an inpatient discharge, to any facility, with the exception of certain planned admissions (Note: Not all hospitals can track readmissions to other facilities. Hospitals should focus on tracking readmissions consistently across time.)
Numerator definition	Inpatients returning as an acute care inpatient to the same facility within 30 days of date of discharge
Denominator	Total inpatient discharges (excluding discharges due to death)
Denominator definition	Total inpatient discharges (excluding discharges due to death)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Facilities should follow the CMS definition of a readmission. This definition is explained in the "Frequently asked questions about readmissions" chapter, available on Quality Net. "Chapter 3 – Readmissions Measures," section "Defining readmissions" beginning on page 7. This is the same definition as is used for Medicare readmission measure but includes all payors.
Data source(s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-READ-1

The following types of admissions are not considered readmissions in the measures:

1. Planned readmissions as identified by a CMS algorithm. The algorithm is based on three principles:
    a. A few specific, limited types of care are always considered planned (obstetric delivery, transplant surgery, maintenance chemotherapy/immunotherapy, rehabilitation);
    b. Otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and
    c. Admissions for acute illness or for complications of care are never planned. For the details of the planned readmission algorithm, please refer to the resources posted on the QualityNet website at Hospitals – Inpatient > Claims-Based Measures > Readmission Measures > Measure Methodology;

2. Same-day readmissions to the same hospital for the same condition. However, the readmission measures do consider patients as "readmitted if they had an eligible readmission to the same hospital on the same day but for a different condition;
3. Observation stays and emergency department (ED) visits. These are not inpatient admissions and therefore are not considered potential readmissions;
4. Admissions to facilities other than short-term acute care hospitals. Facilities such as rehabilitation centers, psychiatric hospitals, hospice facilities, long-term care or long-term acute care hospitals, and skilled nursing facilities do not meet the definition of a short-term acute hospital. Admissions to these facilities are not considered for the readmission outcome;
5. Admissions that occur at eligible short-term acute care hospitals but where the patient is admitted to a separate, non-inpatient unit that bills under a separate CMS Certification Number (CCN), such as separate units for rehabilitation, psychiatric care, hospice care, or long-term care. Such admissions are not inpatient admissions and therefore are not considered as readmissions.

For more information on reducing readmissions, please visit the HRET readmissions topic page at http://www.hret-hiin.org/topics/readmissions.shtml.

Hospital-Wide All-Cause Unplanned Readmissions - Medicare

Readmission: CMS HIIN Evaluation Measure (NQF 1789)	**Outcome Measure**
Hospital-Wide All Cause Unplanned Readmissions	
Measure type	Outcome
Numerator	A Medicare inpatient admission for any cause (with the exception of certain planned readmissions), within 30 days from the date of discharge
Numerator definition	An inpatient Medicare admission for any cause (with the exception of certain planned readmissions), within 30 days from the date of discharge
Denominator	Medicare patients discharged from the hospital
Denominator definition	Total Medicare inpatient discharges (excluding discharges due to death)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	CMS (NQF 1789)
Data source(s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-READ-2

This measure is currently publicly reported by CMS for those 65 years and older who are Medicare FFS beneficiaries admitted to non-federal hospitals. Hospitals are encouraged to report results for all Medicare inpatients, however, the Medicare FFS results are acceptable to report**.**

***Note: This measure is a subset of the "Readmission within 30 Days (All Cause) Rate" measure (HIIN-READ-1). The only difference between this measure and HIIN-READ-1 is that this measure is limited to Medicare patients. See definition above for more details*.**

For more information on reducing readmissions, please visit the HRET readmissions topic page at http://www.hret-hiin.org/topics/readmissions.shtml.

Hospital-Onset Sepsis Mortality Rate

(Optional measure, prefer one of the other Sepsis measures)

Sepsis: CMS HIIN Evaluation Measure	**Outcome Measure**
In-hospital deaths per 1,000 discharges, among patients 18-89 years or obstetric patients, with hospital-onset sepsis	
Measure type	Outcome
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock
Numerator Definition	Number of in-hospital deaths due to severe sepsis and septic shock
Denominator	Number of patients with hospital-onset severe sepsis/septic shock. Note: hospital-onset is an infection that appears 48 hours or more after admission[9]
Denominator Definition	Number of patients with hospital-onset severe sepsis/septic shock
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13 (navigate to PSI 13 Postoperative Sepsis Rate).
Data source(s)	Administrative claims, medical records
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-SEPSIS-1c

ICD-10 Sepsis Codes: A021, A227, A267, A327, A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427, A5486, B377, R6520, R6521, T8112XA

For more information on reducing sepsis, please visit the HRET sepsis topic page at http://www.hret-hiin.org/topics/sepsis.shtml.

[9] http://www.surgeryencyclopedia.com/Fi-La/Hospital-Acquired-Infections.html#ixzz4OIGIPiWy, http://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-12-40, https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-015-0103-6, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470069/

Overall Sepsis Mortality Rate

All Facilities

Sepsis: CMS HIIN Evaluation Measure	Outcome Measure
In-hospital deaths per 1,000 discharges, among patients 18-89 years or obstetric patients, with sepsis	
Measure type	Outcome
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock CMS excludes assignments to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality.
Numerator Definition	Deaths with severe sepsis and septic shock
Denominator	Number of patients with severe sepsis/septic shock[10]
Denominator Definition	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13 (navigate to PSI 13 Postoperative Sepsis Rate). CMS excludes assignment to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality. It is a hospital's choice whether to include or exclude comfort/palliative care, *as long as the monthly measurement is consistent with the baseline measurement and throughout the measurement period*.
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x$ 1,000
Specifications/definitions Sources/Recommendations	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for AHRQ PSI-13 (navigate to PSI 13 Postoperative Sepsis Rate).
Data source(s)	Administrative claims, medical records
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-SEPSIS-1d

ICD-10 Sepsis Codes: A021, A227, A267, A327, A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, A427, A5486, B377, R6520, R6521, T8112XA

For more information on reducing sepsis, please visit the HRET sepsis topic page at http://www.hret-hiin.org/topics/sepsis.shtml.

[10] This measure includes hospital-onset sepsis cases, post-operative sepsis cases, AND any cases that present with sepsis to the hospital (for example, those cases coming in as transfers, or presenting in the emergency department). This measure focuses on measuring the management of sepsis patients once they are identified.

Postoperative Sepsis Rate

Facilities that perform inpatient surgeries

Sepsis: CMS HIIN Evaluation Measure – AHRQ PSI-13	**Outcome Measure**
Postoperative sepsis cases (secondary diagnosis) per 1,000 elective surgical discharges for patients ages 18 years and older	
Measure type	Outcome
Numerator	Discharges among cases meeting the inclusion and exclusion rules for the denominator, with any AHRQ designated secondary ICD-10 diagnosis codes for sepsis.
Numerator Definition	Discharges among cases meeting the inclusion and exclusion rules for the denominator, with any AHRQ designated secondary ICD-10-CM or ICD-10 diagnosis codes for sepsis.
Denominator	Elective surgical discharges for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure. These codes are listed here
Denominator Definition	Elective surgical discharges for patients ages 18 years and older
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	AHRQ PSI-13 (navigate to PSI 13 Postoperative Sepsis Rate)
Data source(s)	Administrative Claims
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-SEPSIS-1a

For more information on reducing sepsis, please visit HRET sepsis topic page at http://www.hret-hiin.org/topics/sepsis.shtml.

3-Hour Sepsis Bundle (*Optional*)

3-Hour Sepsis Bundle	Process Measure
Surviving Sepsis treatment bundle to be completed within 3 hours of presentation.	
Measure type	Process
Numerator	Number of identified sepsis patients who receive all elements of the bundle.
Numerator Definition	Measure lactate level, Obtain blood culture prior to administration of antibiotics, Administer broad spectrum antibiotics, Administer 30 ml/kg crystalloid for hypotension or lactate ≥ 4 mmol/L.
Denominator	Number of identified inpatient and ED sepsis patients.
Denominator Definition	Number of identified inpatient and ED sepsis patients, treatment bundle should be initiated even if transferring to higher acuity facility.
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Society of Critical Medicine & Surviving Sepsis Campaign. http://www.survivingsepsis.org/Bundles/Pages/default.aspx
Data source(s)	EHR/EMR, Risk Management Systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

For more information on reducing sepsis, please visit the HRET sepsis topic page at http://www.hret-hiin.org/topics/sepsis.shtml.

6-Hour Sepsis Bundle (*Optional*)

6-Hour Sepsis Bundle	Process Measure
Surviving Sepsis treatment bundle to be completed within 6 hours of presentation.	
Measure type	Process
Numerator	Number of identified sepsis patients who receive all elements of the bundle.
Numerator Definition	Apply vasopressors (for hypotension that does not respond to initial fluid resuscitation) to maintain a mean arterial pressure (MAP) ≥65mmHg. In the event of persistent hypotension after initial fluid administration (MAP < 65 mm Hg) or if initial lactate was ≥4 mmol/L, re-assess volume status and tissue perfusion and document findings according to Table 1. Re-measure lactate if initial lactate elevated.
Denominator	Number of identified inpatient and ED sepsis patients.
Denominator Definition	Number of identified inpatient and ED sepsis patients, treatment bundle not be applicable for hospitals transferring to a higher acuity facility within six hours. Accepting facilities should include inbound transfers.
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Society of Critical Medicine & Surviving Sepsis Campaign. http://www.survivingsepsis.org/Bundles/Pages/default.aspx
Data source(s)	EHR/EMR, Risk Management Systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 through September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

For more information on reducing sepsis, please visit the HRET sepsis topic page at http://www.hret-hiin.org/topics/sepsis.shtml.

Surgical Site Infection (SSI) Rate

Facilities that perform certain inpatient surgeries (Option 1)

SSI: CMS HIIN Evaluation Measure	Outcome Measure
Surgical Site Infection Rate – separately for: • *Measure 1a: Colon Surgeries (COLO)* • *Measure 1b: Abdominal hysterectomies (HYST)* • *Measure 1c: Total Knee Replacements (KPRO) (Optional)* • *Measure 1d: Total Hip Replacements (HPRO) (Optional)*	
Measure type	Outcome
Numerator	Total number of surgical site infections based on CDC NHSN definition
Denominator	All patients having any of the procedures included in the selected NHSN operative procedure category(s)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Protocol from CDC NHSN Additional Resources: NHSN SSI
Data source(s)	Infection surveillance systems
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-SSI-2a: Colon surgeries, HIIN-SSI-2b: Abdominal hysterectomies, HIIN-SSI-2c: Total knee replacements, HIIN-SSI-2d: Total hip replacement

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals **that do not report to** NHSN, or hospitals that have **NOT conferred rights to their NHSN data to KHC Kansas HIIN** group must report the numerators and denominators for these for specific surgeries separately, following the CDC specifications for these four specific surgeries separately, following the CDC specifications to define SSI.

For more information on reducing SSI, please visit the HRET SSI topic page at http://www.hret-hiin.org/topics/surgical-site-infection.shtml.

Surgical Site Infection (SSI) Standardized Infection Ratio (SIR) *DERIVED*

NHSN Reporting Facilities ONLY

SSI: CMS HIIN Evaluation Measure – NHSN Only (NQF 0753)	**Outcome Measure**
Surgical Site Infection (SSI) Standardized Infection Ratio (SIR) – separately for each procedure *Measure 1a: Colon Surgeries (COLO)* *Measure 1b: Abdominal hysterectomies (HYST)* *Measure 1c: Total knee replacements (KPRO) (Optional)* *Measure 1d: Total hip replacements (HPRO) (Optional)*	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
SIR calculation	$\left(\frac{Numerator}{Denominator}\right)$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the HRET HIIN group or a state group. NHSN-conferring rights required.
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning Oct 2016

HIIN-SSI-1a, -1b, -1c, -1d

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For more information on reducing SSI, please visit the HRET SSI topic page at http://www.hret-hiin.org/topics/surgical-site-infection.shtml.

Surgical Site Infection (SSI) Rate All Procedures *(Optional)*

(Option 2 – for facilities not performing Option 1-specified surgeries)

SSI: Optional Kansas Measure	**Outcome Measure**
Surgical Site Infection (SSI) Rate – All Surgeries	
Measure type	Outcome
Numerator	Number of SSIs
Numerator definition	Total number of surgical site infections occurring within 30 days after selected operative procedures
Denominator	Number of surgical procedures
Denominator definition	All patients undergoing surgical procedures. Include patients undergoing surgical procedures defined in Table 1 of the CDC SSI Event definition (pages 3-8). Exclude procedures during which patient expired in the operating room
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN
Data source(s)	Infection surveillance systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016
Notes	There are two options for SSI outcome measures. Facilities that report on SSI measures for colon surgeries, abdominal hysterectomies, total hip replacements and/or total knee replacements through the NHSN are encouraged to use Option 1 measures. Facilities that do not perform these procedures are encouraged to use Option 2.

For more information on reducing SSI, please visit the HRET SSI topic page at http://www.hret-hiin.org/topics/surgical-site-infection.shtml.

Post-Operative Pulmonary Embolism or Venous Thrombosis (VTE) Rate

Facilities that perform inpatient surgeries

Post-Operative Pulmonary or Deep Vein Thrombosis Rate: CMS HIIN Evaluation Measure	**Outcome Measure**
Post-Operative Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT) Rate	
Measure type	Outcome
Numerator	Number of surgical patients that develop a post-operative PE or DVT
Denominator	All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and a procedure code for an operating room procedure.
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x$ 1,000
Specifications/definitions Sources/Recommendations	AHRQ PSI-12 (navigate to PSI 12 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate).
Data source(s)	Administrative data, Billing systems
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: October 1, 2015 to September 30, 2016 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning Oct 2016

HIIN-VTE-1

For more information on reducing VTE, please visit the HRET VTE topic page at http://www.hret-hiin.org/topics/venous-thromboembolism.shtml.

Additional references:

The AHRQ has developed several resources for the patient safety indicators. These resources are available online at the following links:
http://www.qualityindicators.ahrq.gov/modules/psi_resources.aspx
http://qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10.aspx

Ventilator-Associated Condition (VAC)

Facilities that use ventilators

VAE: CMS HIIN Evaluation Measure	Outcome Measure
Ventilator Associated Condition (VAC)	
Measure type	Outcome
Numerator	Number of events that meet the criteria of VAC; including those that meet the criteria for infection-related ventilator-associated complication (IVAC) and possible/probable ventilator-associated pneumonia (PVAP)
Denominator	Number of ventilator days
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC
Data source(s)	NHSN- conferring rights recommended
Data entry/transfer	Enter into NHSN only.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-VAE-1

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN,** or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators following the CDC specifications for VAE surveillance.

For more information on reducing VAC, please visit the HRET VAE topic page at http://www.hret-hiin.org/topics/ventilator-associated-event.shtml.

Infection-Related Ventilator-Associated Complication (IVAC)

Facilities that use ventilators

VAE: CMS HIIN Evaluation Measure	Outcome Measure
Infection-Related Ventilator-Associated Complication (IVAC)	
Measure type	Outcome
Numerator	Number of events that meet the criteria of infection-related ventilator-associated condition (IVAC); including those that meet the criteria for Possible/Probable VAP
Denominator	Number of ventilator days
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	Available from CDC NHSN Additional resources: CDC
Data source(s)	NHSN- conferring rights recommended
Data entry/transfer	Enter into NHSN only.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-VAE-2

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient

For hospitals in an NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN,** or hospitals that **NOT conferred rights to their NHSN data** must report the numerators and denominators following the CDC specifications for VAE surveillance.

For more information on reducing VAC, please visit the HRET VAE topic page at http://www.hret-hiin.org/topics/ventilator-associated-event.shtml.

Possible Ventilator Associated Pneumonia (PVAP)

Facilities that use ventilators

PVAP: CMS HIIN Evaluation Measure	Outcome Measure
Possible Ventilator Association Pneumonia (PVAP)	
Measure type	Outcome
Numerator	Number of observed PVAPs
Denominator	Number of ventilator days
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x$ 1,000 ventilator days
Specifications/definitions Sources/Recommendations	CDC NHSN
Data source(s)	NHSN- conferring rights recommended
Data entry/transfer	Enter into NHSN only.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to October 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 1, 2016

HIIN-VAE-3

For more information on reducing VAC, please visit the HRET VAE topic page at http://www.hret-hiin.org/topics/ventilator-associated-event.shtml.

Harm Events Related to Patient Handling *(Optional)*

Worker Safety:	**Outcome Measure**
Number of worker harm events related to patient handling	
Measure type	Outcome
Numerator	Number of worker harm events related to patient handling
Numerator Definition	Number of worker harm events related to patient handling
Denominator	Number of full-time equivalents (FTEs)
Denominator Definition	Number of full-time equivalents (FTEs) (Average per/year)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Occupational Safety & Health Administration Compliance Assistance Quick Start Occupational Safety & Health Administration Recordkeeping
Data source(s)	Hospital reporting on OSHA Form 300
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Earliest three-month period January 1, 2014 to September 30, 2016 Alternate: Alternate Q4 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-WS-1b

For more information on reducing harms related to patient handling, please visit the HRET Culture of Safety topic page at http://www.hret-hiin.org/topics/culture-of-safety.shtml.

Harm Events Related to Workplace Violence *(Optional)*

Worker Safety:	**Outcome Measure**
Number of worker harm events related to workplace violence	
Measure type	Outcome
Numerator	Number of associated harm events related to workplace violence
Numerator Definition	Number of worker harm events related to workplace violence
Denominator	Number of full-time equivalents (FTEs)
Denominator Definition	Number of full-time equivalents (FTEs) (Average per/year)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 100$
Specifications/definitions Sources/Recommendations	Occupational Safety & Health Administration Compliance Assistance Quick Start CDC NIOSH Workplace Violence Definition
Data source(s)	Occupational Safety & Health Administration Violence Incidence Report Form
Data entry/transfer	Enter into QHi.
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12-, 9-, 6-, 3-month consecutive period prior to October 2016. *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning Oct 2016

HIIN-WS-1c

For more information on reducing harms related to workplace violence, please visit HRET Culture of Safety topic at http://www.hret-hiin.org/topics/culture-of-safety.shtml.

Hospital-onset MRSA Bacteremia Events *(Optional)*

Methicillin-resistant Staphylococcus aureus (MRSA):	**Outcome Measure**
Hospital-onset MRSA bacteremia events	
Measure type	Outcome
Numerator	MRSA bacteremia events
Numerator Definition	Total number of observed hospital-onset (>3days) MRSA lab-identified events among all inpatients in the facility, excluding well-baby nurseries and NICUs. Positive tests occurring for the same patient and location within 14 days of a previous test are duplicative and should only be counted once.
Denominator	Patient days (facility-wide)
Denominator Definition	Patient days (facility-wide)
Rate calculation	$\left(\frac{Numerator}{Denominator}\right) x\ 1{,}000$
Specifications/definitions Sources/Recommendations	CDC NHSN
Data source(s)	NHSN, infection surveillance systems
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.*
Monitoring period	Monthly, beginning October 2016

HIIN-MRSA-2

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

For hospitals in the KHC HIIN's NHSN group, these data elements will be extracted from NHSN and uploaded to HRET. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the monthly numerators and denominators in QHi following the CDC specifications to *define MRSA bacteremia events*.

The Centers for Disease Control and Prevention (CDC) provides extensive *MRSA* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:
http://www.cdc.gov/HAI/organisms/mrsa-infection.html
http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html
For more information on reducing MDRO-MRSA, please visit the HRET HIIN MDRO topic page at http://www.hret-hiin.org/topics/multi-drug-resistant-organisms.shtml.

MRSA Bacteremia – Standardized Infection Ratio (SIR) *DERIVED (Optional)*

NHSN Reporting Facilities Only

Methicillin-resistant Staphylococcus aureus (MRSA):	**Outcome Measure**
MRSA Bacteremia – SIR	
Measure type	Outcome
Numerator	Number *MRSA* LabID Events in inpatient location > 3 days after admission to the facility
Denominator	Predicted cases of patients with *MRSA bacteremia*
Rate calculation	$\left(\frac{Numerator}{Denominator}\right)$
Specifications/definitions Sources/Recommendations	Available from the Centers for Disease Control and Prevention
Data source(s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to KHC Kansas HIIN group. NHSN-conferring rights required.
Data entry/transfer	Calculated based on NHSN data. No data entry required.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016
Monitoring period	Quarterly, beginning Oct 2016 – enter in the data monthly
Changes from HEN 2.0	Not in HEN 2.0. New measure in HIIN.

HIIN-MRSA-1

This measure utilizes the CDC NHSN definition. Utilize the definition per NHSN specifications that apply at the discharge date of the patient.

The Centers for Disease Control and Prevention (CDC) provides extensive *MRSA* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:
http://www.cdc.gov/HAI/organisms/mrsa-infection.html
http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html

For more information on reducing MDRO-MRSA, please visit the HRET HIIN MDRO topic page at http://www.hret-hiin.org/topics/multi-drug-resistant-organisms.shtml.

Hand-Hygiene Adherence Rate (Infection Topics) *(Optional Measure)*

Hand Hygiene	**Process Measure**
Hand hygiene consistent with recommended guidelines	
Measure type	Process
Numerator	Hand hygiene performed consistent with guidelines
Numerator Definition	Appropriate use of hand hygiene after contact with patient or inanimate objects in the immediate vicinity of the patient
Denominator	Total number of hand-hygiene observation opportunities
Denominator Definition	Perform at least 30 different unannounced observations after contact with patients for as many individual healthcare workers as possible
Rate calculation	$\left(\frac{Numerator}{Denominator}\right)\ x\ 100$
Specifications/definitions Sources/Recommendations	Available from The Joint Commission, hand-hygiene should be monitored according to NHSN protocol (MDRO and CDI Module). www.cdc.gov/nhsn/pdfs/pscmanual/12pscmdro_cdadcurrent.pdf
Data source(s)	Observation
Data entry/transfer	Enter into NHSN; data will be automatically transferred to QHi. If not using NHSN, enter into QHi.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12-, 9-, 6-, or 3-month consecutive period prior to Oct 2016 *If measure not tracked prior to HIIN, report monthly as early as possible.* Note: the baseline period for cohort two of the KHC HIIN hand hygiene collaborative is May, June and July 2019.
Monitoring period	Monthly, beginning Oct 2016 Note: the monitoring period for cohort two of the KHC HIIN hand hygiene collaborative is August 2019 through January 2019.

This process measure also is applicable to all core infection topics: CAUTI, CDI, CLABSI, MDRO, SSI, and VAE.

Additional references:

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following link: www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html

Hand hygiene monitoring is discussed in the MDRO and CDI Module from CDC/NHSN. www.cdc.gov/nhsn/PDFs/pscManual/12pscMDRO_CDADcurrent.pdf

APPENDIX:

KHC HIIN Monitoring Data Submission Schedule

Outcome & Process Measures for HACs occurring in:	Readmissions for index discharges in, and SSI for procedures performed in:	Submission Due
March 2019	February 2019	April 30, 2019
April 2019	March 2019	May 31, 2019
May 2019	April 2019	June 30, 2019
June 2019	May 2019	July 31, 2019
July 2019	June 2019	August 31, 2019
August 2019	July 2019	September 30, 2019
September 2019	August 2019	October 31, 2019
October 2019	September 2019	November 30, 2019
November 2019	October 2019	December 31, 2019
December 2019	November 2019	January 31, 2020
January 2020	December 2019	February 28, 2020
February 2020	January 2020	March 31, 2020

For questions about HIIN measures or data submission,
contact Eric Cook-Wiens, Measures and Data Director at ecook-wiens@khconline.org or 785-235-0763 x1324.

AHRQ PSI Codes

AHRQ Patient Safety Indicators (PSI) Technical Specifications Update – Version 6.0 (ICD-10), July 2016
https://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10_v60.aspx

The ICD-10 codes below are to assist in measurement extraction from EHR, billing, or claims systems and do not represent the entirety of the measure specification. Elements such as age, patient type (obstetric, surgical, etc.), and length of stay may also be applicable. Please review the full measure specification linked above.

AHRQ also provides software to calculate measures from inpatient claims or discharge extracts.
www.qualityindicators.ahrq.gov/software/winqi.aspx

NHSN to QHi Transfer FAQs

As of October 26, 2017, hospitals participating in the Kansas Healthcare Collaborative Hospital Improvement Innovation Network (KHC HIIN) that submit hospital-acquired infection data to National Healthcare Safety Network (NHSN) can now view their monthly aggregated NHSN data in Quality Health Indicators (QHi). KHC and the QHi staff at the Kansas Hospital Association's Educational and Research Foundation completed development of the new process to transfer HAI data submitted to NHSN to QHi for the HIIN measures.

The transfer process serves several purposes: to increase the hospital's ability to perform self-service data analysis in QHi, to increase the overall utility of QHi for member facilities, and to reduce potentially duplicative data entry burden. KHC HIIN hospitals provided permission to KHC and QHi as part of their QHi addendum for the HIIN project.

Q: What data will be transferred?
A: CAUTI, SSI, MRSA, *C. difficile*, and Standardized Infection Ratios (SIRs).

Q: Will the transfer change what is in QHi?
A: *Yes.* The transfer will over-write what currently exists in QHi. Because we use the NHSN measure definitions, the information should be identical.

Q: How often will the transfer happen?
A: Once monthly, synchronized with the KHC HIIN analytic report cycle. The upload will be done after the final monthly HIIN data analytic reports are sent to hospitals.

Q: How will I know if the transfer has changed data I've entered?
A: QHi will display a "Loaded by NHSN" message next to the individual months for each measure.

Q: What if the transferred information is incorrect?
A: Please correct the information in NHSN. If discrepancies persist, please contact KHC's HIIN Measures and Data Director Eric Cook-Wiens by email at ecook-wiens@khconline.org.

Q: Is there any additional action I need to take?
A: No. When your facility joined the KHC HIIN, there was an optional transfer check box as part of the data sharing agreement. Facilities which did not check this box have received a follow-up email confirming their agreement to the transfer.

Q: Why is this necessary?
A: QHi has a wealth of reporting and comparison features which do not exist in NHSN. This transfer will allow facilities to utilize these features.

Q: How far back will the data transferred go?
A: We will transfer data starting January 2015 through the present.